UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,473	04/06/2001	Joseph Allen Carroll	10782-0010	6151

29052 7590 11/04/2005

SUTHERLAND ASBILL & BRENNAN LLP
999 PEACHTREE STREET, N.E.
ATLANTA, GA 30309

EXAMINER	
DUONG, THANH P	
ART UNIT	**PAPER NUMBER**
1764	

DATE MAILED: 11/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/827,473	CARROLL ET AL.	
	Examiner	Art Unit	
	Tom P. Duong	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20 and 23-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20 and 23-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 19, 2005 has been entered.

The Declaration filed under 37 CFR 1.132 on October 19, 2005 is acknowledged.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

1. Claims 1 and 24-25 are rejected under 35 U.S.C. 102(a) as being anticipated by Mlotek et al. (Pub No. DE019912453A1). Mlotek discloses a catalytic converter device (Figs. 3 and 4) for use in a vent or oven comprising: a ceramic substrate (55) having a first surface, a second surface, a circumferential surface, and a plurality of apertures extending through the substrate from the first surface to the second surface, a material coating the ceramic substrate, one or more screens (79, 549) formed of a plurality of woven metal threads (Abstract), defining a plurality of apertures (75) therebetween; a

material coating the screens (55, 551, 553), wherein the coating material comprises a catalyst; and a mounting ring (79 and 59) comprising (i) a body in the shape of a ring (79) and (iii) one or more locking tabs (69) extending from the body, the one or more locking tabs engageable by snap-fit or slide-lock engagement (locking tab 69 slide-lock with 67) one or more surfaces the vent (43) to secure the catalytic converter device within an orifice (43) of the vent such that gases flowing through the vent will pass through the apertures of the one or more screens.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-5, 8-20, and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burstein '788 in view of Mlotek et al. (Pub No. DE019912453A1). . Regarding claims 1, 8-19, and 23-25, Burstein discloses an oven (Col. 1, lines 5-6) with a catalytic converter device (Fig. 3) for use in a vent (Col. 1, lines 64-65) comprising: a ceramic (6,7,8) substrate having a first surface, a second surface, a circumferential surface, and a plurality of apertures (10) extending through the substrate from the first surface to the second surface; a material coating (Col. 2, lines 56-60) the ceramic

substrate, wherein the coating material comprises a noble catalyst (platinum); and a stainless steel mounting ring (rectangular pot 47 and Col. 6, lines 60-62) comprising (i) a body in the shape of a ring (47); (ii) one or more retaining tabs (inwardly directed flange 53) extending from the body which secure the ceramic substrate (6,7,8) within the ring about the circumferential surface of the ceramic substrate; and (iii) one or more locking tabs (secure flange 63) extending from the body, the one or more locking tabs with one or more surfaces the vent to secure the catalytic converter (Fig. 3) within an orifice (27) of the vent such that gases flowing through the vent will pass through the apertures (10) of the substrate. Burstein fails to disclose the locking tabs being engageable by snap-fit or slide-lock engagement with one or more surfaces of the vent to secure the catalyst converter. Mlotek '453 teaches alternative means for securing the catalyst structure to the vent 43 by using the locking tabs 69 slide-lock into the lip 67 and such fastening means facilitate in maintenance or serviceability to the catalyst converter. Thus, it would have been obvious in view of Mlotek '453 to one having ordinary skill in the art to modify the mounting ring of Burstein with locking tabs engageable by slide-lock engagement means as taught by Mlotek '453 to facilitate accessibility and serviceability of the catalyst converter. Alternatively, it would have been obvious to one having ordinary skill in the art to substitute known equivalent structure such as rivets, snap-fit engagement, clamps, clips, screws, latches, and other fastening means including snap-fit or slide-lock engagement means to facilitate securing the catalyst structure to the vent opening, since the use of known equivalent structures involves only ordinary skill in the art . See *In re Ruff*, 256 F.2d 590, 118 USPQ 340

(CCPA 1958). *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958). With respect to the mounting "ring" as being circular, it is well-known in the art that the vent opening or exhaust duct comes with either rectangular or circular shape and it is inherent and/or obvious in view of Burstein to provide a mounting ring, either circular or rectangular in shape depending on the shape of the exhaust duct opening. Regarding claims 2 and 4-5, Burstein fails to disclose the ceramic substrate with thickness and diameter of the claimed invention. However, it would have been obvious in view of Burstein to one having ordinary skill in the art to provide a ceramic substrate with optimum dimension to properly secure the ceramic substrate in the vent opening and to ensure the smoke is completely eliminated. Note, prior art Admission also discloses that the catalytic converter of the claimed invention is commercially available (Specification, page 1, lines 16-25). Regarding claim 3, Burstein shows a rectangular ceramic substrate as shown in Fig. 3; however, it would have been obvious in view of Burstein to one having ordinary skill in the art to provide round disk or rectangular disk depending on the shape of the vent opening. Regarding claim 20, it is conventional to provide an oven with a self-cleaning mechanism and it would have been obvious to do so here to allow the oven to be self-cleaned. Regarding claims 26-28, it would have been obvious to one having ordinary skill in the art to fabricate the prior art retaining tabs and locking tabs integrally with the body, since it has been held by the court that the use of a one piece construction versus separate piece construction would

be merely a matter of engineering choice. See *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965).

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the applied references (Burstein '788 in view of Mlotek '453) as applied to claim 1 above, and further in view of Henderson '457. Regarding claim 6, the applied references fail to disclose the ceramic substrate comprises of cordierite. Henderson teaches the use of a corrugated ceramic of cordierite type (Col. 3, lines 65-70) have been successful in oxidizing or purifying the exhaust gas (Col. 1, lines 40-65). Thus, it would have been obvious in view of Henderson '457 to one having ordinary skill in the art to modify the catalytic converter of the applied references with corrugated ceramic of cordierite type as taught by Henderson in order to affectively oxidize or purifying the exhaust gas.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the applied references (Burstein '788 in view of Mlotek '453) as applied to claim 1 above, and further in view of prior art Admission. The applied references fail to disclose the ceramic substrate comprising of a wash coat. Admission discloses (page 7, lines 11-21) it is well known in the art to use a wash coating process to maximize the coating surface area for the ceramic substrate. Thus, it would have been obvious in view of prior art Admission to one having ordinary skill to modify the catalytic converter of the applied references with the wash coat as disclosed by Admission in order to provide a maximum catalyst contact area for the ceramic substrate.

Response to Arguments

Applicant's arguments filed 10/19/2005 have been fully considered but they are not persuasive. (1) The argument with respect to Mlotek fails to disclose "tabs that both extend from the ring and secure the catalyst." Examiner disagrees since Mlotek discloses the mounting ring 79 with tabs 69 extended from the body cover 59 which lock-fit into the vent opening 67 to secure the catalyst structure 55 as shown in Figure 3. (2) Applicants also argue "the mounting ring is secured to a vent opening by means of screws-not locking tabs". Examiner respectfully disagrees. As described above, the locking tabs 69 is slide-lock into the opening vent 67. Alternatively, it would have been obvious to one having ordinary skill in the art to substitute known equivalent structure such as rivets, snap-fit engagement, clamps, clips, screws, latches, and other fastening means including snap-fit or slide-lock engagement means to facilitate securing the catalyst structure to the vent opening, since the use of known equivalent structures involves only ordinary skill in the art . See *In re Ruff*, 256 F.2d 590, 118 USPQ 340 (CCPA 1958). *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958). (3) The art rejection with respect to the combination of Burstein and Olivo is withdrawn and the argument is moot.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P. Duong whose telephone number is (571) 272-2794. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Duong
October 31, 2005
TD

Glenn Caldarola
Supervisory Patent Examiner
Technology Center 1700